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Serial No.: 09/700,293 Docket No.: BM45321

In the Specification:

Change 1: Please insert the following seven paragraphs into the specification at page3, line 26 as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

Figures 1A-1E show consecutive segments of sequence alignment for two BASB029 polynucleotides, SEQ ID NO:1 and 3.

Figures 2A-2B show consecutive segments of sequence alignment for two BASB029 polypeptides, SEQ ID NO:2 and 4.

Figure 3 shows expression and purification of recombinant BASB029 in E. coli. A substantially purified BASB029 protein fraction (more than 80%) was separated on a 4-20% gradient polyacrylamide gel (NOVEX) under PAGE-SDS conditions in parallel to a protein molecular weight marker. Gels were either stained with Coomassie Blue R250 (lane 1) or analyzed by western blot using an anti-(His5) monoclonal antibody (lane 2).

Figure 4 shows recognition of the BASB029 protein on several NmB strains with BASB029 immunized mice sera.

Figure 5 shows recognition of the BASB029 protein on several NmB strains with BASB029 immunized mice sera.

Figure 6 shows anti-BASB029 antibodies in convalescent sera (part B) and in immunized mice (part A).

Figure 7 shows anti-BASB029 antibodies in convalescent sera (part B) and in immunized mice (part A).

Change 2: Please insert the following paragraph at page 57, line 2:

What is claimed is:





Figure 1A

Identity to SeqID No:1 is indicated by a dot, and a dash ("-") indicates a missing nucleotide.

		* 20 * 40	*		
Seqid1	:	ATGAACAAAATATACCGCATCATTTGGAATAGTGCCCTCAATGCCTGG	GΤ	: .	50
Segid3	:			:	50
-					
		60 * 80 * 1	00		
Seqid1	:	CGCCGTATCCGAGCTCACACGCAACCACACCAAACGCGCCTCCGCAAC	CG	:	100
Seqid3	:			:	100
		* 120 * 140	*		
Seqid1	:	TGGCGACCGCCGTATTGGCGACACTGTTGTTTGCAACGGTTCAGGCGA	GT	:	150
Seqid3	:			:	150
		160 * 180 * 2	00		
Seqid1	:	ACTACCGATGACGACGATTTATATTTAGAACCCGTACAA	.CG	:	191
Seqid3	:	GA.AGAAGAGCAAAA		:	200
		* 220 * 240	*		
_		CACTGCTGTCGTGTTGAGCTTCCGTTCCGATAAAGAAGGCACGGGAGA			241
Seqid3	:	TCTAGAA	• •	:	250
			00		
•		AAGAAGTTACAGAAGATTCAAATTGGGGAGTATATTTCGACAAGA			288
Seqid3	:	AAAAGAAGCAG	• •	:	300
		200	.1.		
		* 320 * 340	*		220
		GGAGTACTAACAGCCGGAACAATCACCCTCAAAGCCGGCGACAACCTG			338
Seqid3	:		• •	:	350





Figur 1B

	360 *	380	* 4	100	
Seqid1 :	AATCAAACAAAACACCAATGA	AAAACACCAATGCC	CAGTAGCTTCACCT	ACT :	388
Seqid3 :		G.	.CA.A	:	382
-					
	* 420	*	440	*	
Seqidl :	CGCTGAAAAAAGACCTCACA	GATCTGACCAGTGT	TTGGAACTGAAAAA	TA:	438
Seqid3 :			. .	:	432
	460 *	480	* [500	
Seqid1 :	TCGTTTAGCGCAAACAGCAA	TAAAGTCAACATC <i>I</i>	ACAAGCGACACCAA	AGG :	488
Seqid3 :		,		:	482
	•				
	* 520	*	540	*	
Seqidl :	CTTGAATTTCGCGAAAAAAA	CGGCTGAGACCAAC	CGGCGACACCACGG	TTC:	538
Seqid3 :	TG	G G		:	532
	560 *	580	*	600	
Seqid1 :	ATCTGAACGGTATCGGTTCG	ACTTTGACCGATAC	CGCTGCTGAATACC	GGA :	588
Seqid3 :	.CT			:	582
	* 620			*	
-	GCGACCACAAACGTAACCAA				638
Seqid3 :	• • • • • • • • • • • • • • • • • • • •			:	632
	660 *	680		700	
-	TGCGGCAAGCGTTAAAGACG				
Seqid3 :			• • • • • • • • • • • • • • • • • • • •	:	682



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Figure 1C

		* 720 * 740 *		
Seqid1	:	${\tt TTAAACCCGGTACAACAGCTTCCGATAACGTTGATTTCGTCCGCACTTAC}$:	738
Seqid3	:		:	732
		760 * 780 * 800		
Soci d1		GACACAGTCGAGTTCTTGAGCGCAGATACGAAAACAACGACTGTTAATGT		788
				782
beqias	•		•	702
		* 820 * 840 *		
Seqidl	:	${\tt GGAAAGCAAAGACAACGGCAAGAGAACCGAAGTTAAAATCGGTGCGAAGA}$:	838
Seqid3	:		:	832
		860 * 880 * 900		
Sogid1		CTTCTGTTATCAAAGAAAAAGACGGTAAGTTGGTTACTGGTAAAGACAAA		888
_		T		882
ocqras	•		•	002
		* 920 * 940 *		
Seqidl	:	${\tt GGCGAGAATGATTCTTCTACAGACAAAGGCGAAGGCTTAGTGACTGCAAA}$:	938
Seqid3	:		:	932
		960 * 980 * 1000		
Seaid1	:	AGAAGTGATTGATGCAGTAAACAAGGCTGGTTGGAGAATGAAAACAACAA	:	988
				982
-				
		•		
		* 1020 * 1040 *		
1		CCGCTAATGGTCAAACAGGTCAAGCTGACAAGTTTGAAACCGTTACATCA	-	
Seqid3	:	•••••	:	1032
		1060 * 1080 * 1100		
Segid1	:	GGCACAAATGTAACCTTTGCTAGTGGTAAAGGTACAACTGCGACTGTAAG	:	1088



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Figure 1D

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		* 1120	*	1140	*		
Seqidl	:	TAAAGATGATCAAGGCAACATCA	CTGTTATGTAT	GATGTAAATGT	CGGCG	:	1138
Seqid3	:					:	1132
		1160 *	1180	*	1200		
Seqid1	:	ATGCCCTAAACGTCAATCAGCTG	CAAAACAGCGG	TTGGAATTTGG	ATTCC	:	1188
Seqid3	:					:	1182
_							
		* 1220	*	1240	*		
Seqid1	:	AAAGCGGTTGCAGGTTCTTCGGG	CAAAGTCATCA	GCGGCAATGTT	TCGCC	:	1238
Seqid3	:					:	1232
		1260 *	1280	*	1300		
Seqid1	:	GAGCAAGGGAAAGATGGATGAAA	CCGTCAACATT	AATGCCGGCAA	CAACA	:	1288
Seqid3	:					:	1282
		* 1320	*	1340	*		
Seqid1	:	TCGAGATTACCCGCAACGGCAAA	AATATCGACAT	CGCCACTTCGA	TGACC	:	1338
Seqid3	:					:	1332
		1360 *	1380	*	1400		
Seqid1	:	CCGCAATTTTCCAGCGTTTCGCT	CGGCGCGGGG	CGGATGCGCCC	ACTTT	:	1388
Seqid3	:	G				:	1382
		* 1420	*	1440	*		
Seqid1	:	AAGCGTGGATGACGAGGGCGCGT	TGAATGTCGGC	AGCAAGGATGC	CAACA	:	1438
Seqid3	:	GAA.		A.G.A		:	1429



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Figure 1E

		1460 * 1480 *	1500		
Seqidl	:	AACCCGTCCGCATTACCAATGTCGCCCCGGGCGTTAAAGAGGGGGGA	TGTT	:	1488
Seqid3	:			:	1479
		* 1520 * 1540	*		
Seqid1	:	ACAAACGTCGCACAACTTAAAGGCGTGGCGCAAAACTTGAACAACC	ACAT	:	1538
Seqid3	:		G	:	1529
		1560 * 1580 *	1600		4
Seqidl	:	CGACAATGTGGACGCCAACGCGCGTGCGGGCATCGCCCAAGCGATT	'GCAA	:	1588
Seqid3	:			:	1579
		* 1620 * 1640	*		
_		CCGCAGGTCTGGTTCAGGCGTATCTGCCCGGCAAGAGTATGATGGC			
Seqid3	:	T		:	1629
		1660 * 1680 *	1700		
_		GGCGGCGCACTTATCGCGGCGAAGCCGGTTATGCCATCGGCTACT			
Seqid3	:		.c.	:	1679
		* 1720 * 1740			
-		CATTTCCGACGGCGGAAATTGGATTATCAAAGGCACGGCTTCCGGC			
Seqid3	:	T		:	1729
		1760 * 1780 *			
-		CGCGCGCCATTTCGGTGCTTCCGCATCTGTCGGTTATCAGTGGTA			
Seqid3	:		: 1	L7	76





Figure 2A

Identity to SeqID No:2 is indicated by a dot, and a dash ("-") indicates a missing amino acid.

		* 20 * 40 *		
Seqid2	:	MNKIYRIIWNSALNAWVAVSELTRNHTKRASATVATAVLATLLFATVQAS	:	50
Seqid4	:	K	:	50
		,		
		60 * 80 * 100		
Seqid2	:	TTDDDDLYLEPVQRTAVVLSFRSDKEGTGEKE-VTEDSNWGVYFDKK	:	96
Seqid4	:	ANNEEQEEDVAIVNK.EAE.	:	100
		* 120 * 140 *		
G ! .10			_	146
_		GVLTAGTITLKAGDNLKIKQNTNENTNASSFTYSLKKDLTDLTSVGTEKL		
Seq1d4	:	RE	:	144
		160 * 180 * 200		
-		SFSANSNKVNITSDTKGLNFAKKTAETNGDTTVHLNGIGSTLTDTLLNTG		
Seqid4	:	G	:	194
		* 220 * 240 *		
_		ATTNVTNDNVTDDEKKRAASVKDVLNAGWNIKGVKPGTTASDNVDFVRTY	:	246
Seqid4	:		:	244
		260 * 280 * 300		
		DTVEFLSADTKTTTVNVESKDNGKRTEVKIGAKTSVIKEKDGKLVTGKDK		
Seqid4	:		:	294
		* 320 * 340 *		
Seqid2	:	GENDSSTDKGEGLVTAKEVIDAVNKAGWRMKTTTANGQTGQADKFETVTS	:	346
Segid4	:	GE	:	344



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Figure 2B

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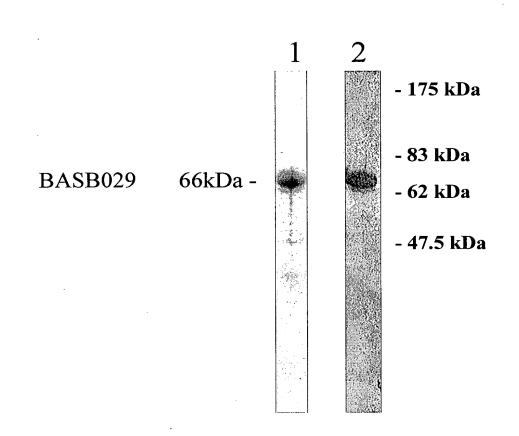
		360 * 380 * 400		
Seqid2	:	${\tt GTNVTFASGKGTTATVSKDDQGNITVMYDVNVGDALNVNQLQNSGWNLDS}$:	396
Seqid4	:		:	394
		* 420 * 440 *		
Seqid2	:	${\tt KAVAGSSGKVISGNVSPSKGKMDETVNINAGNNIEITRNGKNIDIATSMT}$:	446
Seqid4	:		:	444
		460 * 480 * 500		
Seqid2	:	PQFSSVSLGAGADAPTLSVDDEGALNVGSKDANKPVRITNVAPGVKEGDV	:	496
Seqid4	:	KD	:	493
		* 520 * 540 *		
Seqid2	:	TNVAQLKGVAQNLNNHIDNVDGNARAGIAQAIATAGLVQAYLPGKSMMAI	:	546
Seqid4	:	R	:	543
		560 * 580 *		
Segid2	:	GGGTYRGEAGYAIGYSSISDGGNWIIKGTASGNSRGHFGASASVGYQW:	5:	94
Segid4	:	:		91



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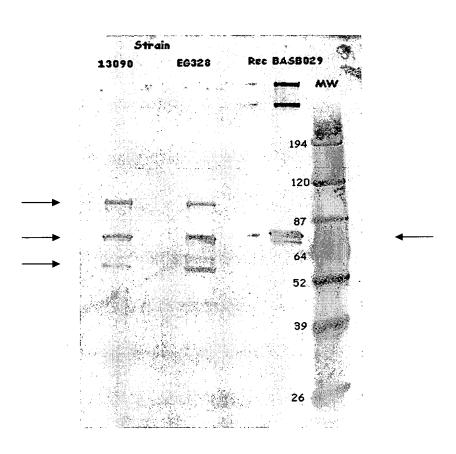
Figure 3





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Figure 4

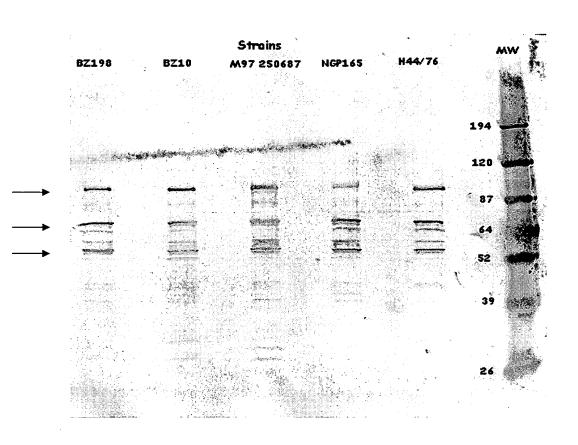




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Figure 5



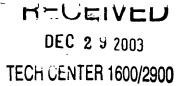
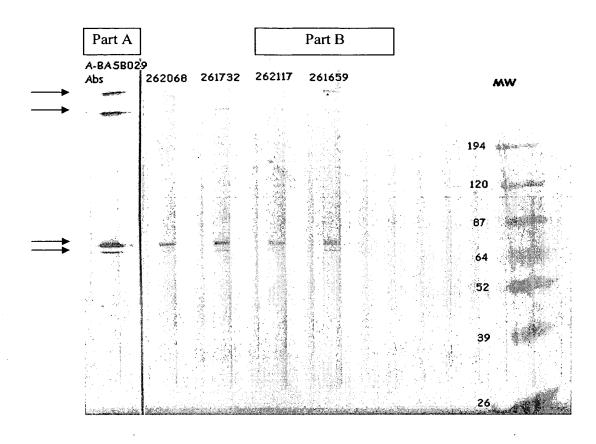


Figure 6





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Figure 7

